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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/707,931

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Wei-Chih Lai

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03/23/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
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EXAMINER

HODGES, MATTHEW P

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,931

Applicant(s)

LAI ET AL

Examiner

Matt P. Hodges

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

Paragraph 0007 includes the reference number 19. It appears that reference number 18 should be used instead.

Paragraph 0018 includes the reference number 125. It appears that reference number 124 should be used instead.

The specification includes several grammatical errors that should be corrected to enhance readability. For instance:

Paragraph 0008 includes the line "... weakened obviously due to the present of the ...", it would appear the word "present" should read "presence" instead.

Paragraph 0019 includes the line "... for avoiding the moisture from penetrating into the beneath organic light emitting ...", it would appear the line is grammatically incorrect in the section quoted.

Not all grammatical errors have been identified here.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver (US 6,664,137) in view of Babuka et al. (US 2002/0008809) and further in view of Harvey et al. (US 5,771,562).

Regarding claim 1, Weaver discloses (see figure 1b) an organic light-emitting device including a first substrate (110), a passivation layer (120) formed over the first substrate, an organic light emitting device (140), a top cap (150), and an adhesive (130) between the cap and the bottom substrate. The top cap includes a flat top portion and a side portion directed towards the bottom substrate. Weaver does not appear to disclose the removal of the passivation layer under the top cap before attaching the cap to the substrate, however Babuka, in the same field of endeavor, discloses the removal of the moisture prevention layer before adhesion of a protective plate in order to advantageously improve adhesion and mechanical strength. (Paragraph 0071 and 0076). Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the removal of the underlying moisture prevention layer as taught by Babuka into the device as disclosed by Weaver in order to advantageously improve adhesion and mechanical strength.

Weaver in view of Banuka discloses the device as claimed, but does not appear to specify the use of a moisture prevention layer that further encompasses the entire OLED element. However Harvey, in the same field of endeavor, discloses (see figure 2) the use of a passivation layer both above and below the organic elements. The use of a passivation layer above and below the organic elements advantageously provides additional moisture protection for the organic elements thus increasing device lifespan. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate the use of a

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passivation layer both above and below the organic elements as taught by Harvey into the device as disclosed by Weaver in view of Banuka in order to advantageously increase device lifespan.

Regarding claim 8, Weaver in view of Banuka and further in view of Harvey disclose the manufacture of the device as claimed. Further Harvey specifies that the removal of the passivation layer is performed through an etch of the preformed passivation layer. (Paragraph 0076).

Regarding claims 2, 3, 9, and 10, Weaver discloses the use of glass for both the cap and the substrate. (Column 3 lines 55-57 and Column 6 lines 44-48).

Regarding claims 4, 5, 11, and 12, Weaver further discloses the use of a curable epoxy for the sealing agent. (Column 5 lines 43-47).

Regarding claim 13, the step of curing the curable epoxy is necessitated by the use of the specified material.

Regarding claims 6 and 14, Weaver discloses a multilayer structure for the underlying passivation layer. (Column 4 lines 15-29). Further the combination of the upper layer taught by Harvey to the lower layer disclosed by Weaver results in a multilayer stack.

Regarding claims 7 and 15, both Weaver and Harvey disclose the use of Silicon Oxides for the passivation layer. (Weaver – Column 4 lines 45-55, Harvey – Column 2 lines 50-55).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Wang et al. (US 6,717,052) discloses the use of forming a sealing portion between the encapsulant and the bottom substrate between two parts of the passivation layer.

Ishii et al. (US 2005/0057155) discloses the use of direct forming of the encapsulant to the bottom substrate, including the steps of etching away intervening layers.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (571) 272-2454. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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